

REMARKS

Claims 1 – 15 are pending in the application. Applicant cancels claim 15 without prejudice or disclaimer, and amends claims 1, 2 – 4, 6, 8, 10, 13 and 14. No new matter is added.

OBJECTION TO DRAWING

The drawing is objected to for failing to show the direction or the shift parameter Vw(D) as described at page 16, lines 17 – 19 of Applicant's specification. Applicant attaches proposed revisions to FIGs. 1 and 6, as replacement sheets in marked-up form. In revised FIG. 1, Vw(D) is highlighted as being provided to convolution circuit 44 for convoluting the tap coefficient of the TEQ 34.

In response to an objection to the specification at page 16, line 27 and page 17, line 3, the proposed revisions to FIGs. 1 and 6 also illustrated parameter Ww (including parameters Ww(new) and Ww(old)).

Applicant respectfully requests that the proposed revisions to FIGs. 1 and 6 be accepted, and that the objection to the drawing be withdrawn. Applicant notes that original FIGs. 2A, 2B, 3, 4A – 4D, 5 and 7 – 17, in addition to revised FIGs. 1 and 6, remain informal and will be accepted for examination purposes only. Applicant will submit formal drawings upon allowance of the present application.

OBJECTION TO SPECIFICATION

The abstract of the disclosure is objected to as exceeding 150 words in length. Applicant amends the abstract to limit the word count to less than 150 words, and respectfully requests that the objection to the abstract be withdrawn.

The specification is objected to at page 20, lines 21 and 22 as using the word “convulsion” instead of “convolution”. Applicant respectfully submits that the word “convulsion” does not appear on page 20, and respectfully requests that the Examiner withdraw this objection.

The specification is further objected to for making reference to the parameter Ww at at page 16, line 27 and page 17, line 3 without an accompanying reference in the drawing. As indicated above, Applicant proposes revisions to FIGs. 1 and 6 to provide such reference, and respectfully requests that the objection be withdrawn.

The specification is in addition objected to for making reference to the parameter E at page 17, line 2 without an accompanying reference in the drawing. Applicant respectfully submits that parameter E is illustrated in current FIG. 6 between blocks 57 and 59, and respectfully requests that the objection be withdrawn.

OBJECTION TO CLAIMS

Claim 2 is objected to as to informalities (use of the acronym “LMS” without a more complete explanation). Applicant thanks the Examiner for suggesting that the acronym be explained as “least mean square”, and amends claims 2 – 4, 6, 8 (each containing the acronym “LMS”) accordingly. Applicant therefore respectfully requests that the objection to claim 2 be withdrawn.

Claim 10 is objected to as lacking sufficient antecedent basis with regard to the term “said FET output”. Applicant amends this term to read “said FFT-processed output”, which is earlier introduced in claim 10. Accordingly, Applicant respectfully requests that the objection to claim 10 be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 112

Claims 13, 14 and 15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. With respect to claims 13, the Examiner finds that each variable in the claim term “coefficient algorithm” is not adequately defined. With respect to claims 14 and 15, the Examiner finds that the acronym “TEQ” is not fully defined.. With respect to claim 15, the Examiner finds that essential steps are omitted from the claim.

Applicant amends claims 13 to define the variables of the coefficient algorithm as follows: “Z is an equalized response, Y is a receive signal, Ww is a convolution parameter, Bu is an update channel target, X’ is a pseudo-random bit string (PRBS) signal, Bw is a response parameter, E is an error signal, Vu is an updated convolution parameter, α is a step size, and Z’ is a complex conjugate of Z”. Support for this amendment may be found, for example, in Applicant’s specification at page 3. line 25 through page 6, line 16 and at page 15, line 26 through page 17, line 20.

Applicant amends claims 13 and 14 to further indicate that the acronym “TEQ” refers to a “time domain equalizer”. Applicant cancels claim 15 without prejudice or disclaimer.

Accordingly, Applicant respectfully requests that the rejections of claims 13 - 15 under 35 U.S.C. § 112 be withdrawn. Applicant thanks the Examiner for indicating that claim 13 will be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112.

REJECTIONS UNDER 35 U.S.C. § 101

Claim 15 is rejected under 35 U.S.C. § 101 as being directed to a non-statutory subject matter. Applicant cancels claim 15 without prejudice or disclaimer, and respectfully requests thereby that the rejection of claim 15 under 35 U.S.C. § 101 be withdrawn.

REJECTIONS UNDER 35 U.S.C. §§ 102, 103

Claims 1, 5, 7, 9, 10-12, and 14-15 are rejected under 35 U.S.C. § 102(e) as anticipated by Hasegawa et al. (U.S. 6,735,244). Claims 2 – 4, 6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa ‘244, and further in view of Hasegawa et al. (U.S. 6,289,045). Applicant cancels claim 15 without prejudice or disclaimer, and respectfully traverses the rejections as to claims 1 – 12 and .

Hasegawa ‘244 was filed on June 14, 2000. Applicant respectfully notes that the present application claims priority from the Japanese Patent Application No. 2000-131591, which was filed on April 28, 2000. Accordingly, with reference to 35 U.S.C. § 102(e)(2), Hasegawa fails to qualify as a patent filed before the date of the present invention, and must be removed as a reference under 35 U.S.C. § 102(e) and under 35 U.S.C. § 103(a). In accordance with 35 U.S.C. § 119(b)(1), Applicant is proceeding to prepare a certified English translation of Japanese Patent Application No. 2000-131591, and will file this translation in the U.S. Patent & Trademark Office upon its completion.

Alternatively and additionally, with respect to the rejection under 35 U.S.C. § 103(a), and in accordance with 35 U.S.C. § 103(c), Applicant submits that each of Hasegawa ‘244 and Hasegawa ‘045 may be qualified only under 35 U.S.C. § 102(e)(2), and were owned or subject to obligation of assignment to assignee Fujitsu Limited with the present application at the time of invention. Accordingly, under 35 U.S.C. § 103(c), each of Hasegawa ‘244 and Hasegawa ‘045 must be removed as references for the rejection under 35 U.S.C. § 103(a).

Accordingly, Applicant respectfully submits that as Hasegawa ‘244 and Hasegawa ‘045 fail to qualify as references for the cited rejections under 35 U.S.C. §§ 102(e), 103(a), these

rejections must be withdrawn. Applicant further submits that claims 1 – 12 and 14 are therefore allowable.

CONCLUSION

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1 - 14, consisting of independent claims 1, 3, 5, 7, and 9 - 13, and the claims dependent therefrom, are in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,



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TJB:fd